

A photograph of a modern milking parlour. The scene is dominated by stainless steel equipment, including overhead racks and milking machines. A prominent feature is a long, vertical blue coiled cable running down the center of the aisle. The floor is light-colored and appears to be made of concrete or a similar material. The overall atmosphere is clean and industrial.

milking parlours

SUPPLEMENT

International
**Dairy
Topics**

Optimal cow throughput and superior comfort

BouMatic, USA

Romain Salaün owns a farm located in Plougin, France. The farm has a herd size of 200 Holsteins and began their new barn project in 2016.

“When starting our new barn project in 2016, we visited many installations in order to make the best choice for our milking system. After comparing similar systems of different brands, BouMatic’s SmartWay 90 rear milking system proved to be the best choice for us,” explains the owner, Romain Salaün.

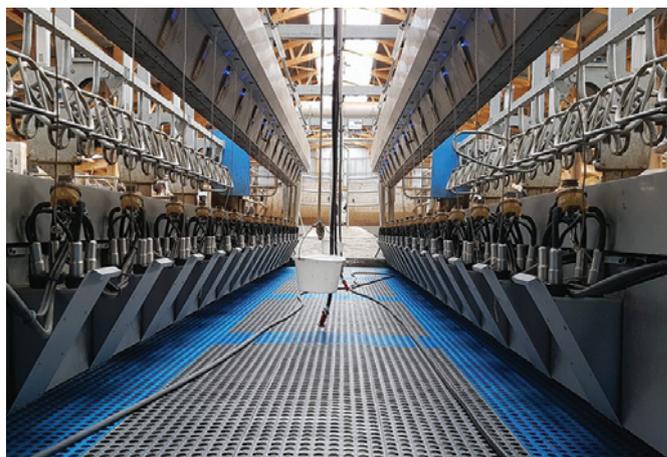
“After a first test in the Orne department in the northwest of France, we were highly impressed by this milking machine and its characteristics: the stalls, milking claws, milking routine, quick start, claw lift/claw drop. This milking machine offers many benefits for both milker and cows. The cows enter the parlour rapidly and smoothly. Besides, the claw lift/claw drop system offers optimal access to the udder. Also, the stainless-steel construction of the milking parlour ensures high quality and durability.”

Romain Salaün resumes: “We could not find a better parlour with a rear milking system.”

Installed on Salaün’s farm is a Double-16 SmartWay 90 Supreme with SmartDairy automation and, SmartControlMeters with TouchPoint, SmartEIDidentification system, Flo-Star MAX claws, AirStar DSL vacuum pump with variable speed drive, Guardian pipeline washer, and HiFlo Evolution pulsators.

BouMatic’s SmartWay 90

The SmartWay 90 is a 90° parallel milking parlour with an innovative rapid exit system, offering the combined performance and technology of the rotating exit reel and the vertical lift exit. The concept of fluent entry, dynamic exit and uncluttered space improves your cow throughput significantly.



The SmartWay 90 promotes a fast exiting thanks to the exclusive front rail that lifts and tilts. This provides a large and open exiting space. All divider gates are mounted directly onto the lifting front rail. Cow entry is also more fluent owing to the specific design of the dividers.

The front rail is equipped with rubber bumpers at the height of the cows’ shoulders for her comfort. Larger breeds fit comfortably in the 29-inch stall.

With cows standing on an elevated platform at a 90° angle facing away from the operator area, it is easy to keep an eye on udder health and access the udder for prep procedures. The optimised, small upper cabinet allows a good overall view, more head space and ultimate udder access. And all the individual control panels are within easy reach.

The operation of the exit is simple with one push button for one action. At the end of milking, the operator simply pushes a button to lift the front rail to its final position, which allows cows to exit. Hesitating cows are gently pushed out when the front rail with sequence gates comes back down and rotates gently into position to load the next cows.

The SmartWay 90 is designed to last a farm for many years of operation. It comes in galvanised steel with stainless steel cabinets. The structure is anchored to concrete. It is built tough and built to last.

BouMatic is dedicated to ensuring that dairy farm producers throughout the world can produce the highest quality milk most efficiently, profitably, and responsibly. ■

boumatic.com



54-bail rotary parlour leads to whole farm efficiency

Pearson Milking, Ireland

Joseph Hughes Junior and Joseph Hughes Senior farm in partnership in Carnew, County Wicklow, Ireland. They are milking 350 cows using a 54-bail Pearson Milking Technology rotary parlour. Previously they were milking in a 16-unit herringbone parlour. The Hughes' father and son partnership carried out extensive research on which parlour they were going to install as they had reached capacity with their current parlour. They researched parlours across the world from Ireland to New Zealand and Australia. Ultimately, they made the decision to choose a Pearson Milking Technology rotary parlour from Ireland after seeing the strength of the deck which is critical to the strength of the whole parlour.

"Probably one of the standout features would be the deck itself. It had a double 'I' beam chassis under the parlour which we saw no other parlour had," says Joseph Jr. The new rotary parlour has brought improvements across the whole farm as well as reducing milking time. In the old parlour they were spending up to nine hours a day milking where the new parlour means cows are only out of the field for just over an hour. Since installing the new rotary, the Hughes have also noticed an increase in milk production and a reduction in their meal bill and fertiliser bills. The parlour allows cows back out to grass quicker which has resulted in better graze outs and better regrowth. Joseph Hughes Sr says, "The cows' welfare is way better."

The Pearson Pro-Select drafting system allows the Hughes to draft out any animal that needs attention and only stops cows when necessary. This has greatly improved cow flow when exiting the parlour while a set of island bars in the collecting yard, stops bullying of the cows and improves cow flow into the parlour. There is a set of Texas gates at the entrance to the parlour which allows one cow at a time onto the parlour.

Having a system that enabled one person to complete the milking by themselves was a key reason for why the Hughes went with the Pearson Milking Technology parlour. The high end automation throughout the parlour allows for this on the Hughes farm. "There is a touchscreen right beside the milker with every control you might need while milking. Whether it be drafting, milk identification or whether it is an antibiotic cow. Everything you need is at your fingertips. We have EID feeding with stainless steel meal feeders. Every cow has retention arms so they can come around a second



time if needs be. We have automatic identification which will tell if a dumpline cow has come in and needs their milk to be separated. The speaker will tell you everything you need to know about that." In addition, the parlour has an automatic teat spraying system and there is a robotic arm which teat sprays the cows and also the integrated smart LED light management system to let the operator know quickly what is happening at each unit.

Milking in the new parlour has become much easier. As Joseph Sr says: "Nobody wanted to milk in the old parlour. If we were fortunate enough to find a good milker they would stay with us a very short time. In our new parlour everybody wants to milk, it is the best job on the farm. The cows are much more comfortable in the parlour. It only took them about four days to get used to it." One of the key benefits of installing the new parlour for Joseph Jr is, "We have time to do things we never did before. Looking back the only thing we would change is we would have done it sooner."

Pearson Milking Technology is an Irish family-owned dairy solutions company providing innovative and durable products to minimise running costs and maximise performance. Based in County Kildare, Ireland, Pearson Milking Technology export to 20 countries globally. Established in 1948, Pearson Milking Technology are proud to celebrate their 75th anniversary in business working with farmers throughout the world. ■

pearsonmilking.com



First complete milking parlour installation just following 3D drawings



Milkline, Italy

One of the most important challenges that we must face every day is to find the most efficient way to support our dealer around the world and around the clock. The installation of a full equipped milking parlour at thousands of kilometers far from our headquarter in Italy is for sure one of the most demanding support actions that we must provide.

Our dealers are skilled persons that already received a dedicated training about Milkline parlours and solutions, but how we can easily and effectively guide them during every phase of a new milking parlour installation? Now we are proud to present one of our installations realised following a complete 3D drawing.

In Autumn 2022, our dealer found a 2x25 parallel milking parlour without the supervision of one of our technicians at the building site. Milkline's technical office designed all the different components that constitute a fully equipped milking parlour one by one. Starting with the frame designs and proceeding with vacuum line, milk line and so on, we can cover all the different parlour installation phases, providing detailed 3D images. We are not referring to a general scheme or designs, but we created technical 3D files that describe every single detail and step of the project.

Our dealers can open by themselves each file and identify all the components, their position inside the parlour, also rotating and zooming every image if needed. At the same time, our 3D drawings can be used by the dealer to check all the component's size and all the distances between them to better understand how to properly assemble every part of our milking parlour.

We adopted this new approach with a new dealer, and the results were amazing. He has historical experience in milking parlour installation and was able to build, for the first time, a complete Milkline milking parlour just following the 3D drawings. The dealer installed a suspended galvanised 2x25 parallel frame for optimal visibility and access to the animal's udders providing further space for easier milking operation. Equipped with the most advanced herd monitoring technology, we can monitor every day not just milk production, but also health and reproduction.

The management software collects every milking animal data and automatically detect animals in heat and

the ones that are suffering for health problems. These kind of tools are almost essential for a herd like this one that milks more than 1500 cows every day.

The milking system works with the ED200 controls system of individual milking points which ensures advanced milking thanks to special features such as automatic stimulation and dynamic pulsation based on milk flow. It provides real time information about the milking process (for example, milk yield, milk flow and milking time, as well as alarms and notifications). All the parameters of the milking cycle can be configured (ratio and pulsation frequency, group removal, advanced functions) with a mobile phone. Thanks to the new dedicated Mobile App the farm manager and all his staff can control animal data and parlour performances at any time from any place.

On our company website (www.milkline.com) we realised an innovative milking parlour configurator. Using this smart platform every farmer that is interested to explore our solutions can configure a fully customisable milking parlour by themselves. At the end of the configuration process, the farmer will be able to navigate the 3D designs of his project, to better understand our offer. The same platform is available for Milkline dealers that can create their own quotation at any time, consulting technical 3D designs and easily analyse every single component of the milking parlour.

We strongly believe that the starting point for each new installation must be a 3D project that can represent the point of reference for the technicians that will take care of the milking parlour installation. Fully detailed 3D technical drawings can overstep linguistic barriers and assist our partners around the world also after the installation phase, allowing them to identify the milking parlour components and easily manage spare parts orders. ■

milkline.com



Maximising your milking parlour's productivity

Waikato Milking Systems, New Zealand

As one of the world's largest producers of rotary milking systems and world-leading smart technologies, Waikato Milking Systems are providing the answer with their state-of-the-art range of automation technology.

Jamie Mikkelson, Waikato Milking Systems Executive Chairman, says, "While we have traditionally been known as a supplier of dairy equipment, we have sharpened our focus using agri-tech to develop smart solutions to address key pain points on farms, whether it be a large commercial dairy operation or family farm system."

One of the most significant benefits of automation technology is the ability to reduce labour costs, "so farmers can run a more productive, cost-efficient and profitable operation 24/7," says Jamie.

Using Waikato Milking Systems' ECR-S or ECR Plus electronic cup removers, for example, allows farmers to milk out their herd consistently, accurately and efficiently while reducing their labour costs. The technology works by automatically removing the milking cups from the cow's teats once the milking process is complete. This reduces the need for an additional labour unit, freeing up valuable time for other tasks.

SmartSPRAY automated teat spraying is another technology that can help maximise productivity and reduce labour costs. This technology works by automatically spraying teats to maximise teat spray coverage while saving time and labour. It also helps to prevent the spread of disease, which is essential for maintaining the health of the herd.

Maintaining optimum udder health is critical to maximising milk production and improving the productivity, performance and profitability of your farming operation. Udder health is a key factor in every animal's individual performance, and if it is not maintained, it will have wider implications, including the loss of production and income.

Cows with udder problems can affect others in the herd, and the cost of even one sick cow can be substantial, directly impacting your farm's profitability. Mastitis, in particular, is a common and curable udder problem, but care must be taken in the treatment of these animals.



Programmable automatic wash systems are another essential component of an automated milking parlour. Waikato Milking Systems' SmartWASH system manages any wash scenario for the plant's requirements, increasing cleaning efficiency and reducing labour. They also help to ensure that the milking parlour is maintained to the highest standards of hygiene, which is essential for maintaining the health of the herd and the quality of the milk.

Waikato Milking Systems' DairyHQ Dairy Management System is another technology that can help drive milking productivity and performance by providing farmers with intelligent and adaptive automation - with a complete overview of the milking platform via mobile devices or desktop computers. The technology can also help to identify and address any issues quickly and efficiently, maximising the productivity and profitability of the operation.

Investing in the best automation technology for your farm's unique requirements will speed up your milking process, make milking easier, save you time, and increase your labour efficiency. This will deliver the best possible return on investment, allowing you to maximise your productivity and profitability.

"Adopting key technologies, including automatic cup removers, automatic teat spraying, and udder health detection systems, can help overcome these challenges, allowing you to maximise milk yields and milk quality. This will lead to a higher-performing, more profitable operation," says Jamie.

As farmers begin their research process for a new milking parlour, or an upgrade, Jamie says, "the conversation is not so much about hardware, but the pain points on the farm which can be solved using smart tech. We are also pioneering robotic-assisted milking technology, which takes our agri-tech solutions to the next level, to target milking productivity."

Waikato Milking Systems has its headquarters and manufacturing plant in New Zealand but has Sales Managers and a dealer network in all of the major dairying countries.

waikatomilking.com



Next generation automated milking

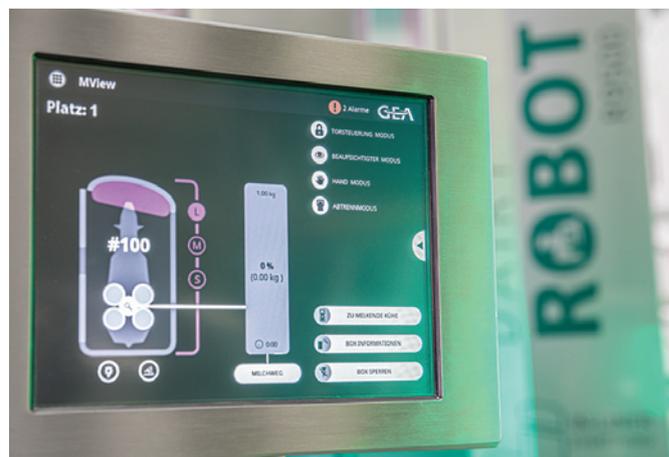
GEA Farm Technologies, Germany

Becoming more flexible in managing her dairy farm, and have a better eye on animal welfare, were the key drivers for Clémence Poussier when reflecting on milking robots six years ago. Clémence joined her father Luc on the farm in 2015. Six years ago, they started a reflection on the future of the farm. They wanted to adjust the workload and farm management to meet the needs of the next generation in terms of automation and digitalisation.

A completely new barn was built for the DairyRobots. The free-stall barn is fully open in order to reduce the temperature and better adjust to climatic peaks. The cows have easily accepted the robots and most of them get milked about three times a day.

“What I really like about GEA’s solution is the milk centre concept. It allows for easy treatment of special need cows and helps us to flexibly manage the whole herd without an additional milking parlour,” says Clémence.

GEA’s DairyRobot R9500 also guarantees full access to the udder at any time. “It is a new way of working, but more flexible and it fits the cow’s needs,” summarises Clémence.



Milking robots are a major step in the life of a farm. Up to September 2022 the family had been milking around 150 cows in a 2x9 herringbone parlour. Now they milk 200 cows with three GEA DairyRobot R9500 with an average of 34kg of milk per cow per day, whereas before the average was 29kg. “Moving from milking two hours in the morning and evening in a 2x9 milking parlour to three DairyRobot R9500 milking robots changes your life,” says Clémence. “The DairyRobot R9500 have the particularity to guarantee a good milking and a good quality of milk. My cell count went down from 195,000 on average to 135,000.”

Indeed, the patented In-Liner Everything milking routine performs every step of the milking process from stimulation to dipping in one single attachment, everything fully protected in the teat cup. In terms of animal comfort, this is excellent. Moreover, it drastically reduces the risk of cross-contamination. With the DairyMilk M6850 cell count sensor she has not only full overview about the cell count classes of each quarter, but also on conductivity, colour and temperature.

“Having milking robots is also about being able to combine performance and herd management. So, I have the opportunity to spend more time with my cows and manage the health of the herd,” says Clémence. “Thanks to DairyNet herd management software, I set up and analyse the data on my computer and follow the herd in real time on my smartphone.”

Choosing GEA’s milking robot also guides the way in terms of efficiency and sustainability. The new generation of the DairyRobot R9500 has significantly increased efficiency in automated milking through an improved dipping and cleaning process.

This also results in a shortened box time for more milkings per day. The farm project around automatisisation and digitalisation went further than robotic milking. Clémence and her father Luc wanted to rely on innovative solutions to equip their farm. They also installed a GEA DairyFeed F4500 feeding robot in June 2022. The cows are automatically provided with fresh feed several times a day.

“Since the installation of milking and feeding robots, we have gained 5kg of milk per cow per day. We work in a quiet farm with an airy building, silent milking robots and a full electric feeding robot. It is a real well-being for us and our cows,” concludes Clémence. ■

[gea.com](https://www.gea.com)

This supplement was produced by International Dairy Topics as a service to dairy professionals.

The Milking Parlour Supplement is included with International Dairy Topics each year. If you would like to be considered for inclusion in the next edition please contact us for more details.



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